

### Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

#### Listing of Claims:

Claim 1. (currently amended) ~~[[A]]~~ An isolated biopolymer marker having a sequence identified as SEQ ID NO:1 useful in indicating at least one particular disease state peptide consisting of SEQ ID NO:1 diagnostic for myocardial infarction.

Claims 2-35. (cancelled)

Claim 36. (new) A method for diagnosing myocardial infarction comprising:

- (a) obtaining a sample from a patient;
- (b) conducting mass spectrometric analysis on said sample in a manner effective to maximize elucidation of discernible peptide fragments contained therein; and
- (c) comparing mass spectrum profiles of a peptide consisting of SEQ ID NO:1 to mass spectrum profiles of peptides elucidated from said sample; wherein recognition of a mass spectrum profile in the sample displaying the characteristic profile of the mass spectrum profile for the peptide consisting of SEQ ID NO:1 is diagnostic for myocardial infarction.

Claim 37. (new) The method of claim 36, wherein said sample is an unfractionated body fluid or a tissue sample.

Claim 38. (new) The method of claim 36, wherein said sample is selected from the group consisting of blood, blood products, urine, saliva, cerebrospinal fluid, and lymph.

Claim 39. (new) The method of claim 36, wherein said mass spectrometric analysis is Surface Enhanced Laser Desorption Ionization (SELDI) mass spectrometry (MS).

Claim 40. (new) The method of claim 36, wherein said patient is a human.

Claim 41. (new) A myocardial infarction diagnostic kit comprising: (a) a peptide consisting of SEQ ID NO:1 and (b) an antibody that binds to said peptide in a sample from a patient.

Claim 42. (new) The diagnostic kit of claim 41, wherein said antibody is immobilized on a solid support.

Claim 43. (new) The diagnostic kit of claim 41, wherein said antibody is labeled.